

PATIENT COMFORT ROUNDING: EFFECT ON PATIENT
ENVIRONMENT AND SATISFACTION

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ABSTRACT

RESEARCH PAPER: Hourly Rounding: Effect on Patient Satisfaction and Nurses' Perceptions of the Practice Environment

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Nursing care delivery models have an impact the patients' satisfaction with care. The care environment includes care models, skill mix, and clinical leadership (Gardner, Woollett, Daly, & Richardson, 2009). Nursing Rounds have been identified as a way to increase patient satisfaction and reduce errors and falls. The purpose of this post-test, non-randomized parallel design study, is to determine the effect of hourly comfort patient rounds on patient satisfaction and safety, and the perceptions of the nurses' practice environment. This is a replication of Gardner et al.'s study, based on the work of Castledine, Grainger, and Close (2005). The study will be conducted at a 300 bed hospital in northern Indiana on four medical-surgical units. The patient sample will include 80 patients. The nursing sample will include 40 nurses and 40 nursing assistants working on the units. The Patient Satisfaction Survey will measure patient satisfaction with comfort rounds. The Practice Environment Scale of the Nursing Work Index will measure nurses' perceptions of the work environment. Patient rounding by nurses or nursing assistants will occur hourly. Results will provide information about the benefits of hourly comfort rounding on patient satisfaction and unit environment.

Chapter 1

Introduction

Healthcare is rapidly changing to meet the increasing demands of the aging population (Lueckenotte & Conley, 2009). The industry has become more competitive, and consumer satisfaction is a key to success (Tea, Ellison, & Feghali, 2008). Hospital reimbursement is based on patient outcomes, and highlights overall patient satisfaction as a key indicator (Centers for Medicare & Medicaid Services, 2011) of patients' rights and responsibilities. Patient satisfaction and safety are priority issues to be addressed in 2012. A number of agencies address the issues of patient safety and patients' rights to effective nursing care (America Nurses Association (ANA), 2012; The Agency for Healthcare Quality (AHRQ), 2011; The Joint Commission, 2012).

Health care ethics is concerned with the rights, responsibilities, and obligations of health care professionals, institutions of care, and patients (American Nurses Association, 2012). The ANA published the *Code for Nurses (1994)*, (ANA, 2012) is the standard by which ethical conduct is guided and evaluated by the profession. It provides a framework to guide professional practice. The *Code for Nurses* is not open to negotiation in employment settings, nor is it permissible for individuals, groups of nurses, or interested parties to adapt or change the language of this code. The *Code for Nurses* encompasses all nursing activities, and may supersede specific policies of institutions, of employers,

or of practices (ANA, 2012). All healthcare agencies must meet recommended standards and patient safety goals. One measure of meeting this standard is patient satisfaction (The Joint Commission, 2012).

Patient satisfaction is measured in a number of ways. Agencies that specialize in patient surveys are experts in market research, statistics, and anthropology. Press Ganey holds a large portion of the market share, and is the most referenced patient satisfaction tool found in the literature. The evaluation and the promotion of a patient-focused care drives improvement in the patient care environment (Press Ganey, 2011).

Healthstream is another patient survey company which utilizes telephone surveys for discharged patients. Healthstream has a wide range of prestigious partners for improving clinical and business outcomes including: the American Association of Critical Care Nurses (AACN), American Heart Association (AHA), Association for Professionals in Infection Control and Epidemiology (APIC), and the Association of periOperative Registered Nurses (AORN) (as cited in Healthstream, 2012). The partners utilize HealthStream's tools, content, and services to elevate the role of learning and development in addressing the challenges of healthcare reform, meaningful use, and value-based purchasing. Healthstream offers education to staff aimed at changing staff behaviors, and ultimately improving patient survey responses (Healthstream, 2012).

Nurse satisfaction is equally important in the hospital environment. Nurse practice models set the stage for the work environment. Practice models are organizing systems within patient care delivery. The dominant care delivery models mentioned in the literature include team/functional nursing, primary nursing, and patient-focused care

(Huber, 2010, p. 449). In addition to care delivery models, the past decade has seen the rise of nursing practice models (Neiser & Raymond, 2002). The models include professional nursing practice, differentiated nursing practice, shared governance, advanced nursing practice, and case management (Neiser & Raymond, 2002). New practice models have been developed with the goal of increasing nurses' job satisfaction, retaining nurses in hospital practice, and producing greater efficiencies in care delivery (Gardner et al., 2009). The Comfort Model of Patient Care Rounds (Castledine et al., 2005) has been researched and utilized to address patient satisfaction and quality of care.

Gardner et al. (2009) performed a pilot study to test the effect of the Comfort Model of Care Rounds, a practice that optimized the role of the nursing assistant in the staff skill mix of providing hourly patient care rounds. This model positively affects patient safety, patient care management, and also reduces the constant high demand on nurses' time, which can lead to stress, burnout, and high turnover. This study will replicate Gardner's study in an attempt to validate the Comfort Model of Care Rounds to increase patient satisfaction.

Background and Significance

Patient satisfaction has historically been a reflection of patients' perceptions of care, and has become increasingly important in the healthcare industry. Perceptions of the quality of the nursing care largely depends on nurses' ability to meet patients' needs. Studies have evaluated patients' perceptions of nursing care, and consistently identified specific elements of nursing care that are very important to patient: smiles, humor, reassurance, kindness, compassion, gentle touch, and the nurse's ability to anticipate the

patient's needs (Castledine et al., 2005; Gardner et al., 2009; Meade, Bursell, & Ketelsen., 2006).

Timely staff responsiveness to patients has been reported in studies to have the greatest impact on patient satisfaction. Tea et al. (2008) reported that more than 40,000 hospital inpatient satisfaction responses during 2004-2005, found "timely response" was the strongest correlation with overall satisfaction for inpatients. Both the quality of the nurse-patient interaction, and the patients' perceptions of care have been found to relate to nurses' ability to meet patients' immediate physical and clinical needs in a timely fashion, and to provide a physical comforting presence (Gardner et al., 2009).

The measurement of patient satisfaction began in the early 1970's. In 1979, Irwin Press introduced the idea of measurement to the University of Notre Dame Medical Anthropology class. In 1984, Press gave a presentation stressing the importance of survey methodology when establishing a patient satisfaction program. By early 1985, Press developed a survey that would measure patient satisfaction as a means of improving performance. However, without expertise in statistics or survey methodology, Press needed a knowledgeable partner to fulfill the mission to help improve health care. As a co-founder of Press Ganey Associates, Ganey brought considerable expertise in research, statistical analysis, and survey methodology to the table, and became a partner with Press (Press Ganey, 2012).

Spanke and Thomas (2010) measured patient satisfaction using the Press Ganey Inpatient survey utilizing specific questions. The sample included questions related to patients' perceptions of the promptness of call lights being answered, staff providing care

safely, staff working well together, and the overall rating of care. Positive responses by patients correlated with higher patient satisfaction (Spanke & Thomas, 2010).

Today patient satisfaction is measured by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). In May of 2005, the National Quality Forum (NQF), an organization established to standardize health care quality measurement and reporting, endorsed the initiative. The HCAHPS provides a standardized survey instrument for measuring patients' perspectives on hospital care. While many hospitals have collected information on patient satisfaction, prior to HCAHPS there was no national standard for collecting, or publicly reporting of patients' perspectives of care information that would enable valid comparisons to be made across all hospitals. In order to make "apples to apples" comparisons to support consumer choice, it was necessary to introduce a standard measurement approach.

The HCAHPS survey is known as the CAHPS® Hospital Survey, or Hospital CAHPS. HCAHPS is a set of core questions that can be combined with a broader, customized set of hospital-specific items. HCAHPS survey items complement the data that hospitals currently collected to support improvements in internal customer services and quality related activities. The processing and analysis of HCAHPS surveys are performed by companies such as Healthstream and Press Ganey.

Three broad goals have shaped the HCAHPS survey. First, the survey was designed to produce comparable data on the patient's perspective on care that allows objective and meaningful comparisons between hospitals on domains that are important to consumers. Second, public reporting of the survey results was designed to create

incentives for hospitals to improve the quality of care. Third, public reporting serves to enhance public accountability in health care by increasing the transparency of the quality of hospital care provided in return for the public investment (HCAHPS, 2011).

Patient satisfaction can be approached with several different strategies. Standardization of shift reports, or hand-offs, established the importance of communicating patients' conditions and immediate needs. A study was conducted at Sharp Grossmont Hospital, a 481 bed tertiary care, magnet-designated community hospital in San Diego County. The authors found that the new design, a combined bedside and written report, was more time efficient for staff, there were fewer falls during shift report, and overtime was decreased (Athwal, Fields, & Wagnell, 2009). The authors concluded that communications and rounding are important strategies to meet patients' expectations.

Patient rounding is an established method of assessing patients' needs. A study by Baker (2010) investigated the effect of patient rounding on patient safety and patient satisfaction in the emergency department. Patients felt less "abandoned" when regular contact was made with patients, even when there was no specific care needed at each interval. Tea et al. (2009) developed and implemented the I Care Rounding Model to proactively meet patients' needs through hourly rounding on an orthopedic unit. Tea et al. found positive improvement in patient satisfaction after the I Care Rounding Model, a Comfort Model of Care, was fully implemented. Ford (2010) studied the value of continuity of care, trust, compassion, respect, safety reliability, responsiveness, and effective communications in the nurse-patient relationship. Ford concluded that hourly

rounding increased perceptions of care and increased patient satisfaction (Ford, 2010).

Gardner et al. (2009) measured patient satisfaction using the Patient Satisfaction Survey (PSS). The PSS was developed by the research team to measure the effects of patient comfort rounding. The PSS included similar questions related to timeliness of patients' needs being met, as the currently used HCAHPS Survey. Both survey tools include a scale range from 1 to 5, with 5 being the most positive response. This study, which is a replication of Gardner et al.'s (2009) study, utilized the HCAHPS tool for the added benefit of comparison data. HCAHPS scores are available on Hospital Compare (2012) along with a data base which allows comparisons to other hospitals. HCAHPS scores influence the CMS reimbursement rate, therefore this survey tool was selected to test for patient satisfaction, and also the knowledge of how that satisfaction will affect the facility's reimbursement dollars. Further study is needed on patient rounding as a strategy for patient satisfaction.

Problem

The healthcare environment is under pressure to improve operational efficiency that includes innovative ways to provide for patient satisfaction, and staff satisfaction within the work environment. Nurse rounding is one way to address patient safety (Gardner et al., 2009). Models of care delivery are the operational mechanisms by which nursing care is provided to patients and families. The Comfort Model of Care Rounding provides patient care rounding that can be performed by nurses and nursing assistants caring for the patient. This model has the potential to not only positively influence patient care, safety, and management, but also to improve the nurse practice environment.

Purpose

The purpose of this study is to test the effect of a Comfort Model of Care Rounding to improve patient satisfaction and nursing practice environment in the hospital setting.

This model shows potential for success in higher patient satisfaction. This is a replication of Gardner et al.'s (2009) study.

Research Questions

1. What is the difference in patient satisfaction in two groups of patients, one group that has comfort hourly rounding and the other group traditional rounding?
2. Are there any differences in nurses' perceptions of the practice environment in two groups of nurses, one that practices hourly comfort rounding and the other group that does traditional rounding?

Organizational Framework

The organizing framework for this study is Comfort Model of Care Rounding based on the work of Castledine, Grainger, and Close's work (2005) which proposes that patients' perceptions of satisfaction with care is derived from nurses' responsiveness and comfort measures. The implementation of a nursing model that provides hourly patient rounding will improve patients' satisfaction. This framework is appropriate for this study because it supports the relationship between timely, hourly patient rounding and patient satisfaction, resulting in improved work environment.

Definition of Terms

Patient Satisfaction: Conceptual.

Satisfaction with care is influenced by the quality of care and safety provided during an episode of care (Gardner et al., 2010).

Patient Satisfaction: Operational.

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is a standardized survey instrument for measuring patients' perspectives on hospital care. The HCAHPS survey measures patient satisfaction with specific indicators such as nurse responsiveness, communication with nurses, communication with doctors, quietness of the environment, and cleanliness.

Hourly Rounding: Conceptual.

Hourly rounding is conceptually defined by Gardner et al. (2009) as nurses making hourly rounds to meet patients' immediate physical and clinical needs in a timely fashion, and to provide a physical comforting presence.

Hourly Rounding: Operational.

Hourly rounding is operationally defined by Gardner et al. (2009) as 1 hour patient comfort rounds by trained staff and providing relevant standardized patient care procedures per protocol.

Limitations

The study is limited to a small sample size in one hospital. Patients and staff may have preconceived expectations which could impact the results. Findings will reflect conditions on medical/surgical units, and not necessarily that of specialized nursing units within the same hospital.

Assumptions

1. Patients perceptions of routine, hourly rounding and nursing interventions will directly impact the level of patient satisfaction.
2. Patient satisfaction scores will increase as hourly rounding is hard-wired and occurs naturally and routinely by the staff.
3. Staff perceptions of routine, hourly rounding and nursing interventions will directly impact the practice environment.

Summary

Due to government mandates, patient satisfaction scores, as determined by HCAHPS, influences the hospital's reimbursement rates. The Comfort Care Model used can impact patients' perceptions of care and feeling of safety and satisfaction. The purpose of this study is to determine the effect of the Comfort Model using hourly rounding on patients' perceptions of care, patient satisfaction scores, and the nurse practice environment. This study is a replication of Gardner et al.'s (2009) study. The findings will provide valuable guidance, feedback and direction of nursing care models to be utilized in the hospital's inpatient care setting relative to interventions aimed at improving safe patient care and patient satisfaction.

Chapter II

Literature Review

Introduction

The modern healthcare environment is under pressure to improve operational efficiency and calls for innovative ways to provide for patient safety, patient and staff satisfaction, and high quality care (Gardner et al., 2009). Models of nursing care have recently been receiving research attention. Rounding is one method of addressing patient satisfaction. The purpose of this study is to test the effect of a Comfort Model of Care Rounding to improve patient satisfaction and nursing practice environment in the hospital setting. This is a replication of Gardner et al.'s (2009) study.

Organization of the Literature

The selected research studies are presented in four categories: (a) organizing framework, (b) rounding and patient satisfaction, (c) reporting by rounding, and (d) rounding and patient safety and pain management.

Organizing Framework

The organizing framework for this study is based on the work of Castledine et al. (2005). The specific concept of patient comfort rounds performed by nursing staff was

introduced by Castledine et al. in the United Kingdom in 2005 in the Dudley Group of Hospitals to improve patient care, involve patients in care, and to improve communications. The authors conceded there is very little research on the concept of comfort, however there is strong agreement that nurses hold the responsibility and accountability for the patient's comfort and wellbeing (Castledine et al., 2005). This theory is different from back rounding, which was often restricted to skin and pressure area care. Patient comfort rounds are also different from matrons' rounds, nurse management rounds, and teaching rounds.

Patient comfort rounds (PCRs) are defined as purposeful, routine, focused rounds using interpersonal communication with patients, which provide increased contact with the nursing staff, and one-to-one interactions. Patients' positioning, cleanliness, skin assessment, pain, and oral hygiene were attended to during rounds in this study (Castledine et al., 2005). Patients' care plans, environment, devices and equipment, and mental/emotional status were assessed. The purpose of the PCRs was to maintain a regular review of the patient's nursing needs, support the nursing process, and evaluate nursing care. All information gathered during rounds were documented and reported and hand-offs (Castledine et al.).

PCRs are an important part of maintaining and monitoring the fundamental aspects of patients' individualized care. PCRs are carried out at 2 hour intervals whenever possible, beginning after lunchtime until night time. PCRs are continued until the patient is asleep and again in the early morning. Some patient require more care and are rounded on (PCRs) more frequently. The authors concluded patient comfort rounds can provide

many benefits to the patient and family, and can strengthen the nurse-patient relationship that is essential to effective nursing care patient comfort.

Rounding: Patient Satisfaction

In 2006, Meade et al. conducted a study that addressed the problem of the unfavorable effects of patients' frequent use of the call light on the effectiveness of patient care management on inpatient units, and its considerable demands on nurses' time. The purpose of this study was to examine the effectiveness of nurses conducting 1-hour and 2-hour rounding of patients, and the use of call lights in the management of patient care, patient safety, and patient satisfaction. A quasi-experimental design was used with nonequivalent groups. The impetus for this study was two-fold. The first purpose was to verify the authors' observations as researchers and practitioners regarding the amount of time nurses spend responding to call lights, and assess its affect on patient-care management, The second addresses the dearth how PCRs will better assist hospitals and nurses to improve daily operations and patient safety. The organizing framework was Patient Satisfaction based on the work of Van Handel and Krug (1994, as cited in Meade, Bursell, & Ketelsen, 2006).

Over a period of 6 weeks a nationwide study was performed by Meade et al. (2006). During the first 2 weeks, only baseline data were recorded. The study took place on 27 nursing units in 14 hospitals, where nursing staff rounded at either 1 hour 2 hour intervals following specific instructions. Hospital units were nonrandomly assigned to experimental and control groups. At the participating hospitals, the chief nursing officer and nurse managers assigned each unit to one of three study groups: "control," "1 hour

rounding,” and “2 hour rounding.” Rounds in the 1 hour rounding group would take place every hour between 6 am and 10 pm, and once every 2 hours between 10 pm and 6 am. Rounds in the 2 hour rounding group would take place every 2 hours during the entire 24 hour period. The decision of making 1 hour or 2 hour rounding was made by each hospital. The principal investigator (CM) ensured that the sample was stratified according to the type of unit (medical, surgical, or combined medical/surgical), unit size, and frequency of rounding (Meade et al., 2006).

Call light logs were used to record the time, room number, and reasons the patients used the call lights. Rounding times and general patient comments were recorded on rounding logs. Validity and reliability was maintained by nurse managers who reviewed the rounding logs and call light logs daily to ensure compliance with the research protocol, and also verified that rounding was being performed by asking patients. Reliable, valid data on patient satisfaction came from patient surveys developed by three commercial vendors used by hospitals, who in turn gave the principal investigator the hospital units’ mean scores. Survey vendors were Press Ganey, NRC+Picker, and Professional Research Consultants. Surveys were based on a 5 point Likert-type scale (1=poor/strongly disagree to 5=excellent/very good/strongly agree), and converted to a 100-point scale. Safety data was collected by the number of falls during the time period (Meade et al., 2006).

Research question 1 was: “Can purposeful and regular interval rounding reduce the use of the call light to more urgent needs of the patient that specifically need an RN?” (p. 60). Findings from research question 1 were that there were no statistical differences

in the proportion of call lights made in each major reason category, indicating results were comparable at baseline related to the reasons for the calls. However, binomial tests did reveal significant reductions ($P=0.007$) in call light use for the 1-hour rounding condition across all three time periods and for almost all major reason categories (Meade et al., 2006).

Research question 2 was: “Is there a relationship between regular interval rounding and patient satisfaction?” (p. 60). Findings from research question 2 were that patient satisfaction scores on data from the 1 and 2 hour rounding units showed significant increases in patient satisfaction scores in both groups. One hour rounding had a prior mean score of 79.9, and increased to 91.9 during the protocol ($t=736.58$, $P= 0.001$), 2 hour rounding prior mean score was 70.4 and increased to 82.1 during the protocol ($t=657.11$, $P=0.001$) (Meade et al., 2006).

Research question 3 was: “Is there a relationship between regular interval rounding and a reduction in patient fall rates and creating a safer environment?” (Meade et al., p. 60). Measurement for research question 3 included paired t-tests used to compare the number of falls during the baseline period to the experimental period. The analysis revealed that significant reduction in falls occurred with the 1 hour rounding. While the number of falls did decline in the 2 hour rounding group, it was not statistically significant.

The authors concluded that 1 hour rounding positively affects patient care and staff welfare. Nurses indicated that the units were quieter; nurses were able to be more attentive and responsive when call lights rang, and had more time to care for patients and

perform other tasks such as charting and patient education (Meade et al., 2006).

Therefore, the study provided evidence successful outcomes in three patient care areas, and became a model for hourly patient rounding.

With increasingly limited resources, hospitals are faced with prioritizing the focus of interventions for improvement. Tea et al. (2008) reported on an analysis of 40,000 observations in four hospitals, and found one important intervention that made the most significant impact was timely staff responsiveness. The purpose of the study was to improve staff responsiveness and improve overall patient satisfaction. The I Care Rounding model was implemented, placing the emphasis on proactively meeting the patients' needs through hourly rounding.

In a study by Tea et al. (2008), a joint replacement outcomes team focused on improving staff responsiveness to patient needs and requests. The team was composed of members from four hospitals, varying in size from 182, to over 800 beds, within the same healthcare system. Together 2,900 joint replacements procedures were performed every year. A total of 113 patients undergoing joint replacement were interviewed, and asked to define responsiveness, and identify the caregivers who exemplified responsiveness. Baseline scores were collected and showed timely staff responsiveness at only 47.6%. All patients included were on the orthopedic unit.

The research team studied more than 40,000 inpatient satisfaction responses during 2004-2005, with a subset of 2,565 patients with joint replacement responses. Using logistic regression analysis, "timely response" was identified as the strongest correlate to overall satisfaction for inpatients. "Timely response" was between the top two key

drivers specifically for patients undergoing joint replacement. An overall high association to satisfaction was indicated by an odds ratio of 4:1. Patients who scored staff responsiveness high were four times more likely to also score overall satisfaction high. The model and collection forms were trialed and revised until deemed appropriate data collection tools. After full implementation, initial post-measures from 202 patients were compared with baseline scores. An additional 4,362 patients were rounded on by nurses, and responses were analyzed to verify the improvement (Tea et al., 2008).

Utilizing cause and effect analysis, the team identified potential root causes relating to inadequate responsiveness. Cause-and-effect analysis is a brain-storming tool useful for harnessing ideas and diagramming potential causes to a problem. From the analysis, five root causes emerged: (a) staff not anticipating needs, (b) lack of a structure schedule for routine tasks places staff in a reactive mode, thus giving the impression to the patient of not being proactive, (c) lack of patient “request” ownership, (d) lack of teamwork, making it easy to hand off issues and expect others to take care of the request, and (e) too many process steps in the “response to call light” process lead to increased potential for delays (Tea et al., 2008).

To promote sustainability of the I Care Rounding model, a measurement system was developed and implemented. Five variables were collected by managers of the units in face-to-face interviews with patients on day 2 of the hospital stay, and recorded on the manager rounding log to ensure staff compliance. Variables included: (a) percentage of staff responding in a timely manner to patients’ requests, (b) percentage of staff anticipating needs, (c) percentage of staff rounding hourly, (d) percentage of staff asking

“is there anything else I can do for you?” prior to leaving the room, and (e) percentage of RNs sitting with the patient at the beginning of the shift to discuss needs and goals (Tea et al., 2008, p. 237).

The results of the study showed improvement in each of five measures.

1. "Staff timely responding to requests" improved from 47.6% to 84.6%.
2. "Staff anticipating needs" improved from 47.2% to 85.7%
3. "Staff rounding hourly" improved from 34.5% to 89.7%.
4. "Staff asking 'Is there anything else I can do'" improved from 43.1% to 88.2%
5. "RNs sitting discussing goals and needs" improved from 80.6% to 88.5%

(Tea et al., 2008, p. 235).

The measure “RNs sitting discussing goals and needs” improved the least, but had started at a significantly higher level. Statistical significance (using chi-square tests with $p < .0001$) was observed for each measure. The fifth measure was the only nonsignificant measure, with a p value of .0877.

The I Care Rounding model also benefited patients beyond the general orthopaedic unit at each hospital because unit leaders became much more knowledgeable about meeting the most important needs of the patients. Unanswered call lights of immobile orthopedic patients can create a sense of helplessness and fear. One unit traced the number of calls from the call bell system. In December 2006, 3,591 calls were experienced in a 2-week period. In April 2007, after full implementation of the I Care Rounding model, calls fell to 2,509, a reduction of 1,082 calls. Tea et al. (2008)

concluded the overall impact on patient satisfaction showed a statistically significant upward trend, (regression slope $p = .0088$), with data from the combination of the four orthopaedic units over 8 quarters.

Patient satisfaction is an important phenomenon in health care. Organizations continually seek innovative approaches to increase patient satisfaction scores. Many studies indicate nursing behaviors are essential to patient satisfaction. Patients value the nurse-patient relationship, including time spent at bedside, continuity of care, trust, compassion, respect, safety, understandable instructions, and quality of service. Patients appreciate reliability, responsiveness, and effective communication. The purpose of the Ford's (2010) study was to determine if patient satisfaction increased significantly as the new strategy of proactive hourly rounding was implemented.

The setting was the Baltimore Washington Medical Center (BWMC), a 311-bed facility that is part of the University of Maryland Medical System. It is located on the Baltimore and Washington, DC corridor. In 2009, 2,600 BWMC employees cared for more than 200,000 patients. The 51-patient sample included 29 females (57%), and 22 males (43%). Patients' ages ranged from 21 to 90, with a mean age of 58. All patients were alert, oriented, and able to communicate needs to nursing staff. Patients received hourly rounding by one nurse. During a 3-week period, the researcher rounded hourly on up to nine patients per day (Ford, 2010.).

Call light logs on patients were maintained for a 2-week period prior to rounding. The researcher rounded hourly on assigned patients for a 3-week period. Quantitative call light data were collected during this time, along with data from rounding logs and

discharge phone calls made to patients within 48 hours of discharge. To serve as controls, a random sample of patients who did not receive hourly rounds were also tracked for call light use and results of the follow up discharge phone survey.

Patient Satisfaction at BWMC was monitored by the Jackson Healthstream Organization, that uses Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. The HCAHPS survey is a tool co-developed by the Centers for Medicare & Medicaid Services and the Agency for Healthcare Research and Quality. It provides a nationally standardized and publicly reported benchmark of patients' perceptions of care (Ford, 2010).

Findings from the call light logs from the case study showed a 52% decline in call light use after the initiation of hourly rounding. With fewer interruptions by call lights, units benefit by being quieter, and nurses have more time to care for patients and do charting. No falls were reported during the study period, possibly due to the higher frequency of patient contact, although there were no data collected to support this. Comments on discharge phone calls reflected the patients' perceptions of receiving superior care by nursing staff, comfort, pain management, safety, and that the staff members took the time to listen to patients (Ford, 2010).

When staff members round on patients every hour and address basic needs, such as toileting and placement of personal items, the risk for falls decreases. Patients are less likely to get to out of bed when personal needs are already met. Regular turning and positioning of patients during routine rounding can decrease pressure ulcer rates on inpatient cases by up to 56%. Patients with existing wounds benefit from regular turning

schedules with an improved healing process. Hourly rounding leads to better quality of care, which in turn has a positive effect on patient satisfaction scores. Nursing satisfaction also increases when staff have better utilization of shift time and decreased frustration (Ford, 2010).

Ford (2010) concluded hourly rounding has a positive impact on patient satisfaction, improves quality and safety, and reduces patient anxiety. During nurse rounding, the nurse has an opportunity to identify patients' needs and develop an accurate care plan. The patient knows that nursing staff members will return as promised, and patients utilize the call light less frequently.

Nursing is the center of the patient's hospital experience, and therefore well positioned to influence the quality of patient care and the prevention of patient adverse events. The purpose of a study by Gardner et al. (2009) was to test the effect of a model of practice that optimized the role of the nursing assistant in the skill mix. It was a quasi-experimental study using a non-randomized parallel group trial design.

The research was conducted during an 8 week period on two acute surgical wards at the Royal Brisbane & Women's Hospital in Brisbane, Australia. The study included 6 patients and 23 nurses on the interventional ward, and 68 patients and 16 nurses on the control ward. The Patient Satisfaction Survey (PSS), developed in conjunction with the Practice Environment Scale of the Nursing Work Index, was used by the research team to specifically illustrate the effects of the patient comfort rounding intervention. Various published scales on surveys influenced the final instrument that was subjected to psychometric testing for reliability. The PSS has nine statements related to having

patients' needs met in a timely manner, individualized care, timely attention to call bells, and nursing care. Patients were asked to complete the PSS after discharge, which included a scale ranging from 'strongly agree' (1), to 'strongly disagree' (5), with a midpoint of 'uncertain' (3) (Gardner et al., 2009).

The effect of comfort rounds on the nurses' perceptions of the practice environment was measured using the Practice Environment Scale of the Nursing Work Index (PES-NWI), which generated five subscales relative to nurses' participation in hospital affairs, nursing foundations for quality of care, nurse manager ability, leadership and support of nurses, staffing and resource adequacy, and collegial nurse-physician relations. Nurses were to complete the PES-NWI at three time points, the week prior to beginning the intervention of patient comfort rounds, the fourth week of the rounds, and 2 weeks after the completion of the rounds (Gardner et al., 2009).

The sample included 61 patients (29 female, 12 male) on the intervention ward and 68 patients (27 female, 41 male) on the control ward. The patients, 75% in the intervention sample, and 70% of the control sample, were 42 or older. The mean length of stay was 6.9 days on the intervention ward, and 8.5 days on the control ward. None of the differences between the groups were statistically significant. None of the variables were correlated with the PSS responses, which tended to cluster in the 'strongly agree' and 'agree' options (Gardner et al., 2009).

The dimensionality of the PSS items was examined using principal components analysis (PCA), which captured the presence of two well-defined components. Component 1 consists of the five items that refer to specific nursing behaviors, and the

four Component 2 items are related to general nursing care. Utilizing Person's r correlations of the two subscales, and the calculations of Cronbach's alphas for the full scale and subscales, the analyses suggested that the PSS has good reliability (Gardner et al., 2009).

There were no significant differences in sex, age, level of professional education, and years of nursing experience, between the control and intervention groups of the nurses surveyed with the PES-NWI. There were no significant differences between groups on the nurse attributes subscale. Significant differences were found on the quality of care subscale, the resource adequacy subscale, and the professional relations subscale. No significant differences were found between the control and experimental groups of patients from the PSS, which is most likely due to the small sample size (Gardner et al., 2009).

The PCA of the PSS showed good reliability, multidimensionality, and a degree of flexibility, so it could be administered in a larger study of the effect of patient comfort rounds. The results of the Practice Environment Scale suggested that overall, nurses who participated in the comfort rounds experienced improvement in perceptions of quality of care, resource adequacy, and professional relations. There were unexpected declines in the nurses' perceptions of quality of care, nurse managers' attributes, and resource adequacy in the control group. One possible explanation was the control group staff's perceptions of preferential treatment of the intervention staff by having the comfort round intervention (Gardner et al., 2009).

This pilot study was of limited size and scope. The study did achieve its primary objectives: allowed the development of a reliable and focused PSS instrument, confirmed that nurse-led, patient centered, and quality-of-care oriented therapeutic interventions can have a positive on the nursing practice environment, patient safety and patient satisfaction measures of call bell usage, patient falls, and pressure injury rates. The outcome measures would benefit by being incorporated in to a large scale, fully funded study (Gardner et al., 2009).

Leaders that understand how service, safety, and quality issues impact financials can implement tools that boost and sustain both patient satisfaction and strong financials. The purpose of the Blakley, Kroth, and Gregson's (2011) study was to determine the impact of nurse rounding on hospital patients on overall patient satisfaction, nurse turnover rates, and patient and nurse satisfaction, influenced by intentional nurse rounding every 2 hours. The methods used were case study, in-depth data collected through multiple sources of information, and a final case-based descriptive report was generated. This project was considered an action research project, a systematic approach to investigation that enables researchers to find effective solutions to common, everyday problems. The action research framework, *Look, Think, Act*, was used to organize and focus research activities.

The research project took place at West Valley Medical Center in Caldwell, Idaho, a 150 bed acute care community hospital. It was conducted on the hospital's 37-bed medical-surgical unit to determine how to best meet the needs of hospitalized patients, and ultimately improve patient satisfaction scores. Study participants were the members

of the medical-surgical nursing staff and persons who had been hospital inpatients within the last 6 months. The 4 P Program, a nurse rounding program designed to anticipate and meet basic patient needs at least every 2 hours, was initiated (Blakley et al., 2011).

Two hundred medical-surgical patients from each quarter were surveyed by the Gallup Organization using the Hospital Care Quality information from the Consumer Perspective (HCAHPS) survey tool. Patients were interviewed during hospitalization, and results were compared to the formal survey results. Staff interviews were conducted to assess the feasibility of the integration of the 4 Ps rounding program (pain, position, potty, placement) in daily work flows. The study period was 2008 through 2009. The HCAHPS tool has been tested and approved by CMS and the Agency for Healthcare Research and Quality (AHRQ) (Blakley et al., 2011).

Patient satisfaction HCAHPS scores, collected weekly by the Gallup Organization, steadily increased in conjunction with the introduction of the 4 P rounding program. Findings from the HCAHPS survey showed overall patient satisfaction was 3.50 (on a scale of 1-4, where 1=*completely dissatisfied*, and 4=*completely satisfied*) at the end of the second quarter. At the final measurement, approximately midway through the 3rd quarter 2008, overall satisfaction was 3.60 (n=101). A rounding tool, designed to address the study's research questions, was used for staff that included four questions related to the 4 Ps: (a) Were you able to incorporate 4 P rounding every 2 hours? (b) What system problems have you identified with the 4 P rounding system? (c) What call light changes have you observed since 4 P rounding started? and (d) Do you have any specific

comments you'd like to share about the 4 P process and how can it be improved? (Blakley et al., 2011, p. 329).

Based on staff responses, the 4 P rounding process made a difference in the number of call lights answered for needs associated with pain, placement of key items, bathroom assistance, and patient position. Staff did express concern that not everyone followed the same process to check the 4 Ps. A need to continue education and training on the rounding program was identified. The researchers conducted focus group interviews with patients who offered perceptions of care. A commonly voiced patient expectation was for compassionate care provided by nurses who take time to attend to personal needs. Staff reported that patients were using call lights less and for more serious needs. Patients consistently reported that patient care team members responded to call lights almost immediately. Patient complaints, citing staff rudeness, also decreased 43% between the 3rd and 4th quarters in 2008 as the 4 P rounding program was introduced. Patients frequently described staff as kind, considerate, and compassionate (Blakley et al., 2011).

In conclusion, the 4 P rounding program demonstrated that meeting basic patient needs is related to overall patient satisfaction. Regular rounding increased patient satisfaction scores, and is expected to continue to improve HCAHPS scores. Maintaining the process as patient census fluctuated, and staff turnover occurred, was identified as the most difficult aspect of the rounding program. In 2009, the 4 P rounding program became part of a larger initiative that was designed to improve patient engagement and increase HCAHPS scores. The initiative focused on three key areas: nurse

communications, pain management, and cleanliness of room and bathroom assistance. The 4 P rounding program became part of the nurse communication action strategies, and is a continued focus for the medical surgical unit of West Valley Medical Center (Blakley et al., 2011).

Understanding the factors associated with hospital readmission has important implications for managing healthcare, including both inpatient care and discharge planning. The purpose of a study by Boulding, Glickman, Manary, Schulman, and Staelin (2011) was to determine whether hospitals where patients report higher overall satisfaction with interactions among the hospital and staff, and specifically the experience with the discharge process, were more likely to have lower 30-day readmission rates after adjustment for hospital clinical performance.

Boulding et al. (2011) identified 4,469 hospitals that reported 30-day risk-standardized readmission rates, 4,488 hospitals that collected clinical performance measures, 3,746 hospitals that collected HCAHPS surveys, and 6,338 hospitals in the American Hospital Association (AHA) database. All hospitals that had complete information for readmission rates, clinical performance measures, patient satisfaction scores, and AHA hospital structural characteristics, were included. Record screening resulted in a sample of 1,798 hospitals for acute myocardial infarction, 2,561 hospitals for heart failure, and 2,562 hospitals for pneumonia. The clinical performance data were based on 430,982 patients with acute myocardial infarction (mean of 240 per hospital); 1,029,578 patients with heart failure (mean of 402 per hospital); and 912,522 patients with pneumonia (mean of 356 per hospital).

There were 18 clinical performance measures in the three clinical categories (seven for myocardial infarction, four for heart failure, and seven for pneumonia). While the Hospital Care Quality Information from the Consumer Perspective (HCAHPS) contains 10 dimensions of patient care derived from 18 or 22 individually survey questions, the authors chose two hospital-specific questions. “How do you rate the hospital overall?” and “Would you recommend the hospital to friends and family?” were used to assess patients’ overall satisfaction with the hospital experience (Boulding et al., 2011, p. 42). The authors also chose two questions that would indicate the patient’s satisfaction and the hospital’s adherence to discharge policies: “During this hospital stay, did doctors, nurses, or other hospital staff talk with you about whether you would have the help you needed when you left the hospital?” and “During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?” (Boulding et al., 2011, p. 43).

Scoring of the information on each hospital for overall satisfaction and discharge satisfaction was determined. For the two overall satisfaction questions, the HCAHPS database provided three levels: low (rating of 1-6), medium (score 7-8), and high (score 9-10). The percentage of patients who responded to a given level was multiplied by the numerical values of 0, 0.5, and 1 for low, medium and high, respectively to obtain scores between 0 and 1, where 1 indicated that all patients gave a high response, and 0 indicated that all patients gave a low response. The hospital-level overall patient satisfaction score is the mean of the two numerical values. For the two discharge questions, the reported percentages were converted into numerical values by assigning the percentage of “no”

responses the value of 0 and the percentage of “yes” responses the value of 1 and averaging the two questions across respondents (Boulding et al., 2011).

Three separate logistic regression analyses were performed in which the dependent measures were based on the risk-standardized hospital readmission rates of each of the three clinical areas. Readmission rates were converted to 1 or 0 to reflect whether patients were readmitted. Therefore, positive coefficients indicated higher readmission rates. The unit of analysis was the hospital; therefore hospitals with more patients were weighted more heavily (Boulding et al., 2011).

The independent variables were hospital-level clinical performance, overall patient satisfaction, and patient satisfaction with discharge planning. Sensitivity analyses were performed to determine the change in predicted risk-standardized 30-day readmission rates associated with a change in hospital score from the 25th percentile to the 75th percentile for the overall patient satisfaction score, and for the patient satisfaction with discharge planning score, while keeping the hospital-level clinical composite score fixed (Boulding et al., 2011).

Finally, researchers calculated pairwise Pearson product moment correlation coefficients between the overall patient satisfaction score and the eight other HCAHPS-reported dimensions of quality. The purpose was to assess which dimensions were most associated with the patients’ overall satisfaction with the hospital’s quality of care. JMP version 7.0.2 was used for all statistical analyses. $P < 0.5$ was considered statistically significant (Boulding et al., 2011).

Overall patient satisfaction, and patient satisfaction with discharge planning, were both negatively, significantly correlated with higher 30-day risk-standardized readmission rates for all three clinical conditions. Additionally, all three clinical composite scores were negatively, significantly correlated with higher 30-day risk-standardized readmission rates. Multivariable logistic regression analyses for all three clinical performance measures were negatively associated with higher 30-day risk-standardized readmission rates, although the acute myocardial infarction, and heart failure measures were not statistically significant ($P=.16$ and $P=.06$ respectively). Higher overall patient satisfaction scores also were associated with lower 30 day risk-standardized readmission rates for all three clinical conditions; readmission for heart failure and pneumonia were statistically significant ($p<.001$ and $p=.02$ respectively) (Boulding et al., 2011).

Interquartile improvements in patient total satisfaction scores were associated with significantly lower predicted 30-day risk-standardized readmission rates in all three clinical measures. Improvements in 30-day risk standardized readmission rates associated with interquartile improvements in the patient total satisfaction scores for heart failure, acute myocardial infarction, and pneumonia were 4.9, 2.2, and 1.6 times higher, respectively, than scores associated with interquartile improvement in the same three clinical composite scores. Quality of communication by nurses had the strongest correlation with overall patient satisfaction; patient satisfaction with discharge planning was rated 7th of the eight questions in terms of correlation. Also low in correlation with overall patient satisfaction were the two questions concerning the hospital facilities

(cleanliness and noise level), again highlighting that overall patient satisfaction seems to be capturing the patients' interactions with the hospital staff (Boulding et al., 2011).

In this study, patients' overall satisfaction scores and perceptions of the hospital's discharge process were negatively, significantly correlated with the hospital's 30-day readmission rates in the three clinical areas studied. The two patient-related measures were more predictive than the objective clinical performance measures often used to assess the quality of hospital care. Overall satisfaction scores are most highly correlated with factors associated with the patients' interactions with hospital staff. Given the association between the patients' perceptions and better outcomes, the findings suggested that patient-centered information can be used to assess the degree to which patients will be more likely to experience better health outcomes, at least as measured by hospital readmission rates, and the associated healthcare costs (Boulding et al., 2011).

The researchers noted that hospitals have devoted substantial resources to manage the current core set of clinical performance measures. Despite dramatic improvements in clinical process performance for heart failure, there has been virtually no reduction in readmission rates or costs. The findings confirm the lack of association between heart failure clinical measures and readmission rates. Conversely, findings confirmed patient-reported measures were highly associated with 30-day readmission rates. Therefore, patients' perceptions about hospital care in general, and discharge planning specifically, may provide an important new tool for measuring the quality of transitions of care (Boulding et al., 2011).

Reporting by Rounding

Hand-off communication, or change-of-shift report, is an important part of a nurse's role and is a routine for patient care. Shift reports that lack a formal structure and guidelines can lead to inefficiencies, and irrelevant or inadequate information exchange. The purpose of the study by Athwal, Fields, and Wagnell (2009) was to describe a bedside clinical nurse-led initiative to design a standardized shift report that created a more time-efficient process while improving the quality of information reported.

The initiative took place at Sharp Grossmont Hospital, located in San Diego County. Sharp Grossmont is a 481-bed tertiary care, not-for-profit Magnet-designated community hospital. It serves a semi-rural, suburban community covering 750 square miles, and ½ million residents. The shift report performance improvement (PI) project began on the 34-bed Progressive Care unit (PCU). The PCU had an average daily census of 28 patients, an average length of stay of 2.5 days, and approximately 8-10 discharges and admissions per day. The patient population was primarily cardiac medical patients. There were 55 registered nurses, 1 educator, 15 nursing assistants, 8 monitor technicians (which also function as unit secretaries), and 1 equipment technician. All nurses during both the 7:00 am and 7:00 pm shift reports were observed and studied for 2 months without participants' knowledge. Oncoming and off-going nurses were occupied with the current reporting process for 30-60 minutes each shift change (Athwal et al., 2009).

The new shift report that was initiated was incorporated from best practices from the literature reviewed, results from staff comments, and the physical layout of the unit. The result was a combination of a standardized written update, followed by a private shift

report conducted at the patient's bedside. The written update was a concise report sheet that includes patient information at the top, and below are two identical boxes for Shift Update. Additional pages are utilized and stapled together for patients hospitalized for more than two shifts. Each Shift Update section contains information specific to that shift, such as patient vital signs, cardiac rhythm, blood glucose results, assessments, abnormal lab values, plan of care, and "med clock," which identifies the times the patient is to receive medications (Athwal et al., 2009).

The new process requires the oncoming nurse to review the written update first, then met with the off-going nurse to answer any questions, and clarify any information. The two nurses then concluded the reports at the patient's bedside, which included an introduction of the oncoming nurse to the patient and/or family. This new report process was piloted by all nurses for 1 month. It was then modified by the unit practice council and was voted to initiate full implementation. The new shift reporting process was evaluated on the amount of time spent for shift report, overtime expenses related to shift reports, call lights, staff satisfaction, and patient falls. Data were collected and reported for 6 months prior to the shift report change, and 5 months after its initiation (Athwal et al., 2009).

The results were overwhelmingly in favor of the new reporting system. The amount of time expended on shift report decreased from 30-60 minutes in a conference room, to no time in the conference room, and 10-15 minutes at the patients' bedside. Shift report was completed for all patients within 15 minutes, which rarely had nurses incurring any overtime related to completion of the report. A 2 month review of overtime data

demonstrated an \$8,000 reduction directly associated with the decrease in time for shift report. There had been an average of six call lights on by the end of report when using the previous shift reporting design. With the new shift report structure, it is rare for a call light to go unanswered during change of shifts because part of the report was at the patient's bedside (Athwal et al., 2009).

During daily rounds by the manager and staff meetings, the bedside clinical nurses responded positively to queries about the new shift reports. Nurses reported that the smaller amount of time spent in shift report allowed nurses to provide patient care sooner, and off-going nurses could leave work on time. Oncoming nurses expressed satisfaction with the written report that contained pertinent patient information. A review of incident reports indicated that prior to the new shift report, one-two patient falls occurred each month during change of shift. After the implementation of the new shift report, only one patient fall occurred in 6 months between 7:00 am and 7:30 pm (Athwal et al., 2009).

The new shift report met the original objective of creating a more standardized and time-efficient process for hand-off communication. Nurses were clear about what information was to be provided to the oncoming nurses, patients met the nurse sooner, nurses could leave work on time, and there had been a financial savings from a reduction in overtime usage. A decrease in the number of patient falls, and a reduction in call lights occurred. While valid patient satisfaction data related to shift report was not available post-implementation of the new process, patients made many positive comments about the new shift report, including that the nurses came to the bedside and introduce each other. The results suggested that by standardizing the shift report and changing the

process, the goal of creating a more time-efficient process while improving the quality of information provided was attained (Athwal et al., 2009).

Change of shift is a time when nurses and nursing assistants are less visible to patients. The amount of time it takes for a change of shift report to be completed directly affects the time that nurses and nursing assistants are available on the unit for patient care. Information sharing procedures, and oral reports can consume up to 38% of the nurses' time on hospital units. The purpose of the project initiated by Spanke and Thomas (2010) was to examine the impact of a nursing assistant walking report at change shift on patient satisfaction, patient safety, falls, pressure ulcers, and the perceptions of the nursing assistants of the work environment.

The setting was a 50-bed orthopedic and medical-surgical unit. The care provider skill mix included RNs, nursing assistants, and nurse technicians. All nursing assistants working on the unit, and all patients admitted to the unit, were included. Data were collected from the first 2 quarters of the year prior to the implementation of walking rounds, and compared to the first 2 quarters of the next year post-implementation. The new change of shift report included only specifically identified, pertinent areas of patient care, and a structured 9 point rounding process. It began with an introduction by the off-going shift personnel to the oncoming personnel. Patients were assured that rounds were being completed to ensure safety and comfort. Dry erase boards were updated, re-positioning was done as needed, and comfort measures addressed (room temperature, blankets, etc.). Bed alarms and restraints (if in use) were assessed for accuracy and continued needed. Cleanliness of the room, soiled linens, clutter and trip hazards were

taken care of. Nurses assured call lights and personal possessions were within easy patient reach (Spanke & Thomas, 2010).

Patient satisfaction was measured using the Press Ganey Inpatient Survey to determine if patients believed the call lights were being answered promptly, the staff provided care safely, worked well together, and included the overall rating of care. Patient safety was measured by the number falls per 1,000 patient days. Pressure ulcer rates were taken from a point-prevalence study. The frequency of call light use, and promptness in response to the call light were collected from data provided by the hospital call light system. The nursing assistants' perceptions of the work environment were measured using a questionnaire that included open-ended questions about the practice, work environment, and perceptions of the effects of walking report on fall rate, pressure ulcer rate, and patient satisfaction. The questionnaire was administered by the unit clinical nurse specialist, and was collected 16 months after implementation of the changes (Spanke & Thomas, 2010).

Patient satisfaction with how timely the staff responded to call lights improved after implementation of the walking rounds by nursing assistants. Prior to the project, the mean was 82.5, versus 84.5 after the rounds were initiated. The number of positive responses by patients to "staff provide care in safe manner" decreased from 88.3 to 86.1 across the same time periods. This could have been influenced by a number of factors during the stay; however that was not included in the investigative findings. Positive responses to "staff worked together to care for you" increased from 87.7 to 88.0, and the overall rating of the care given changed slightly, with 88.5 pre-implementation and 88.0

post implementation. Patient falls per 1,000 patient days decreased from 5.09 to 4.36 during the time periods of pre- and post- implementation of walking rounds. This was an impressive 14.3% improvement (Spanke & Thomas, 2010, p. 264).

Hospital-acquired pressure ulcers increased from 2.90 pre-implementation of walking rounds to 4.40 post-implementation. This study included point-prevalence data that was completed quarterly. The frequency of call light activation was also compared pre- and post- implementation of the shift change walking report. The number of times the call light was activated decreased from 53,281 in 2007 to 49,388 in 2008, even with the addition of an additional eight patient beds. The response time to the call decreased from 10 minutes, 10 seconds, to 1 minute, 7 seconds. This is consistent with the improvement noted in the Press Ganey survey results on how promptly staff responded to calls (Spanke & Thomas, 2010).

Twenty-eight nursing assistants (82%) responded to the survey on walking rounds. The responses revealed that the overall work environment improved, staff perceived patients were more satisfied with care. All but one nursing assistant reported positive outcomes from the walking report related to daily practice. Nursing assistants commented that the rounds helped staff to organize better at the beginning of the shift, and staff knew patients were comfortable because positioning occurred during rounds. Most of the nursing assistants (96%) stated that teamwork had improved. More staff were available to help because many were in the halls or in patient rooms. Nursing assistants believed that checking on the patient during change of shift prevented patient falls, and improved general skin care because patients were assessed and repositioned at change of shift in

addition to regular turning schedules. Ninety-five percent reported that patients like knowing when the previous shift nurses are going home, and who will be caring for patients next (Spanke & Thomas, 2010).

The authors suggested that the nursing assistant walking report at change of shift may improve some aspects of patient satisfaction with care, such as the number of times the call light was used. Contact with the nursing assistants, and visibility of the team of caregivers during shift report may result in patients feeling more comfortable, safer, and more cared for on the units. Visibility could also be the reason for patient to press the call light less frequently. Patients perceived that staff were taking less time to respond to call lights, as evidenced by patient satisfaction survey data. The results were supported by the call light data, which showed an actual reduction in the call light response time. Overall, the survey results indicated the nursing assistants' perceptions of the work environment, patient satisfaction, and care quality were positive. Pride in work was enhanced with the realization of the importance of patient rounding (Spanke & Thomas, 2010).

Rounding: Patient Safety and Pain Management

Patients suffering from chronic pain make great demands on resources and time in health care systems. Ross (2008) reviewed orthopedic services in the study hospital. There were a number of patients admitted as inpatients for musculo-skeletal pain for which surgery was not appropriate. An intervention by the Pain Management Service (PMS) could have an influence on patients' comfort, well-being, and hospital length of stay. The aim of this study was to evaluate the impact upon pain management of regular

rounds by the Chronic Pain Nurse Specialist (CPNS) on orthopedic wards. Specific objectives were to assess existing practice in relation to chronic pain management, identify if regular rounds would change the existing practice, and to identify any change to patient care.

The study was conducted in a United Kingdom District General Hospital. Any patient 18 years and older admitted to orthopedic services with musculo-skeletal pain, who did not require surgery, was included (excluding head injuries) (Ross, 2008).

A retrospective audit was first conducted using medical records of patients who had been admitted with musculo-skeletal pain, for which surgery was not appropriate. The audit was completed for patients who had been admitted in the 6 month period prior to the CPNS commencing ward rounds. A standard against which to measure the effectiveness of the CPNS intervention was therefore established. A second audit was conducted over a 6 month period following the introduction of CPNS bi-weekly ward rounds. The information collected from inpatient medical records that fulfilled the same criteria as in the first audit, was then assessed by the CPNS. There were nine items of data collected and compared (Ross, 2008).

The first audit included 17 female and 14 male patients, with an average age of 47 years. In the second audit, there were 11 females and 15 males, with an average age of 42 years. Reasons for admission included the diagnoses of low back pain, neck pain, knee pain, hip pain, spinal swelling, and fall. One of the patient treatment regimes of both groups was medication therapy, inclusive of Morphine, Co-codamol, non-steroidal anti-inflammatory drugs, and Paracetamol alone or a combination of these. One was

given an epidural, 11 were fitted with TEN's machines, and 1 was given a series of 3 acupuncture treatments (Ross, 2008).

The findings showed that in both audits, the largest group of patients was admitted for back pain. However, the length of stay for the patients was reduced from 1 week or more in the pre-intervention group, to only one patient staying 6 days, and with most patients only being admitted for 1 day in the post-intervention audit. This indicated that more input from the CPNS on orthopedic wards helped implement effective pain management. One reason noted was the better working relationship developed between the nursing staff and the CPNS following ward rounds. Because of this improved relationship, the patient admitted with a pain problem will have the CPNS contacted upon admission, and a member of the pain team will see the patient as soon as possible. The CPNS listens to the patients, and discusses different treatment options, allowing patient choice in care. The types of treatments offered are transcutaneous electrical stimulation, acupuncture, education, and analgesia advice (Ross, 2008).

The audit indicated that intervention on the orthopedic wards by the CPNS does affect the length of stay through pain management for patients with musculo-skeletal pain who do not receive surgery, and therefore reduces health care costs. It was acknowledged that there are many factors that can influence the length of stay of patients. Not all of the credit for the reduction in length of stay can be attributed to the input of the CPNS, but the fact that the Pain Team is having input in the patient care is an improvement in itself (Ross, 2008).

Patient falls are a critical problem in all health care organizations and settings. Falls account for a considerable number of injuries, therefore becoming the focus of fall prevention programs. Efforts are aimed at interventions to reduce serious injury, which can lead to increased hospitalization, transfer to a higher level of care, and significant complications, even death. The purpose of the study by Lueckenotte and Conley (2009) was to define the definition of a fall, analyze the scope of the problem, identify the cost of falls and provide an evidence-based approach to fall assessment and management.

The population (Lueckenotte & Conley, 2009) focused on the geriatric population (65 and older). Data were gathered from multiple sources related to the level of severity of patient falls, the incurred costs, risk factors, assessment purpose and tools, and interventions. Settings included home falls, where 30%-40% of community-dwelling elders fall annually; long-term care, where 50%-75% of residents fall annually; and hospital falls. Hospital falls are the largest single category of reported incidents in hospitals, and the second most frequent cause of harm for patients. It has also been found that one in four elders reported limiting activities because of the fear of falling.

Several empirically tested tools are available to predict patients who will fall in a healthcare setting. An appropriate, accurate, and individualized fall risk assessment is necessary to identify patients at a high risk for falls so that risk reduction measures can be put in to place. The Morse Fall Scale, a widely used tool in both hospitals and long-term inpatient settings, was one of the tools utilized in this study. Other empirically tested tools include the Hendrich Fall Risk II, Timed Get Up and Go, and Tinetti Performance Oriented Mobility tests. The tests have sensitivities ranging from 78% to 87%, and can

be administered in from less than 1 minute to 20 minutes. The tests are completed on admission of patients, with periodic reassessments with change in patient condition or per facility policy. Using a valid and reliable risk assessment tool for the patient's setting should be used. The Medicare Quality Improvement Community (MedQIC) is a free online resource that offers tools for nursing facilities to improve fall care processes and outcomes. Fall risk in long-term care is assessed by the Resident Assessment Protocol (RAP) (Leuckenotte & Conley, 2009).

Lueckenotte and Conley (2009) stated that while falls are most often the result of the interactions of complex and multiple risk factors, many of which are preventable, research identifies many of the common risk factors. Risk factors identified are history of falls, altered elimination, mobility impairment, medications, cognitive impairment, and dizziness. Findings of the study identify the most effective interventions are individualized according to the patients needs, and are targeted to identify and address the risk factors. Interdisciplinary reassessments and interventions must be included in the patient's plan of care.

Specific interventions identified in the study included low beds with mats on both sides of the bed, bed/chair alarms, hip protectors, bed placement to patient's stronger side for exit, medication review, and elimination pattern assessment. Interventions for confused patients may also included self-release lap belt, sensory aids, night lighting, and a helmet if indicated (Leuckenotte & Conley, 2009).

Leuckenotte and Conley (2009) concluded that falls are a significant problem, particularly for the elderly, frail, and cognitively impaired. Reducing fall risk and fall-

related injuries requires the nurse to recognize the multiple intrinsic and extrinsic actors that have potentially serious consequences. A systematic approach to fall risk assessment using evidence-based tools is essential. Research shows it is possible to reduce the frequency, severity and associated negative outcomes of falls with individualized interventions.

While hospitalized, patients often feel alone and in need of care, and are unsure if the nurse is available to help. Patients may attempt activities or actions without the assistance of the nurse, placing at higher risk of falls or other hospital-associated conditions. Woodard (2009) examined an intervention developed to decrease patient uncertainty regarding nurse availability for response to immediate needs in a study published in 2009. The purpose of this study was to examine an intervention developed to reduce uncertainty regarding nurse availability for response to immediate needs, leading to an increase of patient satisfaction scores and improved patient safety (Woodard).

The 4 P's include the assessment of Pain, Potty needs, appropriate Positioning, and Presence of Personal needs. Rounds are completed by the charge nurse every 2 hours and include addressing the "4 P's. Using Mishel's Uncertainty of Illness model as a basis, the concept of help uncertainty is defined for this clinical project. The research supports that frequent patient rounding has a positive impact on patient satisfaction and improved patient safety. Rounding has shown to elevate patients' level of certainty that patients' needs will be met. Uncertainty is defined as the inability to determine the meaning of

illness-related events and occurs when the patient cannot accurately predict an outcome (Mishel, 1988, as cited in Woodard, 2009).

The study took place at a Midwestern teaching hospital on a medical-surgical unit. This is a Magnet-accredited hospital that is part of a large health system. The unit is a 27 bed adult surgical services unit that consists of general surgery, neurosurgery, otolaryngology surgery, and post-procedure patients from endoscopic retrograde cholangio-pancreatography and interventional radiology. The unit includes a population of both acute-care and progressive-care patients with an average daily census of 24.02. The average age of the patients is 60 years, and the average length of stay on this unit is 7.8 days. The ratio of registered nurse to patient is 1:3 on the day shift, and 1:4 or 1:5 on night shift. There also is a charge nurse that does not have a patient care assignment. All patients admitted on this unit were included in the study (Woodard, 2009).

Prior to the introduction of the charge nurse rounding, a 45 minute education presentation was conducted to introduce the evidence-based intervention, and the potential benefits and value of routine rounding on patient safety and satisfaction. The unit-specific outcome measures for fall rates, frequency of call-light use, and patient satisfaction were shared with the charge nurses. Each 12-hour shift's designated charge nurse made rounds on each patient every 2 hours during the shift. The first round of the shift included introductions of self and the primary care nurse, and an update of the marker board with the date and nurse names. The subsequent rounds identified and addressed concerns related to pain, the need to use the bathroom, and the need to change

positions in the bed. This became known as the 4 P's. The four P's were consistently used to guide the assessments during rounds (Woodard, 2009).

The National Research Corporation Picker Scale was used to measure help uncertainty for both the study unit, and another unit for comparison. The perceptions and the evaluation of the rounding by the charge nurses were completed using a paper survey and were completed anonymously. Fall rates and patient satisfaction scores were reported quarterly to the unit manager and the CNS (Woodard, 2009).

Call-light frequency data were collected from the call-light reporting system. A report with the number of normal call lights turned on by patients is generated monthly. This report of normal calls does not include calls from the bathroom, emergency calls initiated by staff, and accidental activation of the call lights. The normal-call frequencies were then divided by the number of days in the month, and divided by the average daily census of the unit. This gave the number of normal call lights per patient per day. The three patient outcomes of falls, patient satisfaction, and call-light frequency per patient were collected retrospectively from December 2006 (Woodard, 2009).

Fall rate and patient satisfaction were identified as needing improvement prior to beginning the intervention of charge nurse rounding. After the first quarter of charge nurse rounding, falls and call-light frequency both dropped, and there was also an increase in patient satisfaction. In addition, the data collected from December 2006-September 2007 showed a continued trend in the decrease in falls and call-light frequency for this unit. Patient satisfaction also continued to increase since the implementation of charge nurse rounds (Woodard, 2009).

Twenty five patients on a comparable unit that did not use routine charge nurse rounding were surveyed using the Likert scale National Research Corporation Picker Scale surveys to measure help uncertainty. More than half (52%) of the patients surveyed were neither certain or uncertain that a caregiver would help immediately if needed. Only two patients were certain that needs would be met by a caregiver. On the charge nurse rounding study unit, 25 patients were also surveyed on help certainty level for immediate needs. Seventy-two percent of the patients surveyed were very certain a caregiver would meet immediate needs for assistance (Woodard, 2009).

Woodard (2009) concluded patient rounding made a significant, positive impact on patient satisfaction. Patient falls and call light frequency both decreased during the time of the study.

Summary

The literature review presents published studies of patient care rounding provided by the bedside caregivers. Patient satisfaction, reporting, patient safety, and pain management are all positively affected by meaningful, patient care rounding. The research examined patient and staff satisfaction, improved communication, and increased patient safety, measured by fewer patient falls. The organizing framework that grounded the studies was the level of patient satisfaction derived from the patients' perceptions of several care indicators. Samples from the research studies included patients from multiple hospitals from various inpatient floors, in areas throughout the country and England. Tools used to measure patient satisfaction were evidence based, including the

Press Ganey Survey , utilizing a Likert scale, with resulting HCAHPS scores. The authors' findings were similar and consistent across the studies.

Meade et al. (2006) reported a protocol which incorporates specific actions into nursing rounds, conducted every 1 to 2 hours, can reduce the frequency of patient call light use, increase nursing care satisfaction, and reduce falls. The results suggested implementation of operational changes in hospitals to emphasize nurse rounding on patients to improve patient satisfaction and safety. Tea et al. (2008) concluded that staff responsiveness was important to patients, and predictive of overall satisfaction. Blakley (2011) stated the 4 P rounding program demonstrated regular rounding increased patient satisfaction scores and is expected to continue to improve HCAHPS scores. Gardner et al. (2009) achieved the goal of a study to develop a reliable and focused Patient Satisfaction Survey instrument, and confirmed that nurse led, patient centered, quality-of-care oriented therapeutic interventions can have a positive effect on the nursing practice environment, including patient safety and patient satisfaction. Ford (2010) reported hourly rounding is about engaging the patients, going to the bedside, finding out needs, and accomplishing tasks; rounding is a common sense approach to patient care. Boulding et al. (2011) concluded higher hospital-level overall patient satisfaction and patient satisfaction of discharge planning are associated with lower 30-day readmission rates. Patient-reported information about hospital performance can have an important role in the evaluations and management of hospital quality.

Atherwal et al. (2009) concluded that a new, revised shift report met the original objective of creating a more standardized and time-efficient process, which attained the

goal of improving the quality of health information provided, and improved communication. Spanke and Thomas (2010) provided evidence that walking report by the nursing assistants improved patient satisfaction as expressed by patients feeling more comfortable, safer, and cared for on the unit.

Ross (2008) indicated pain that is assessed regularly, appropriately, and systematically, is an essential part of pain management. Routine rounds on the orthopedic units decreased length of stay through improved pain management (Ross). Leuckenotte and Conley (2009) concluded that appropriate management of falls requires the nurse to recognize that falls are the result of the interaction of multiple intrinsic and extrinsic factors that have potentially serious consequences. Therefore this requires a systematic approach to assessment and intervention strategies using an evidence-based tool. Woodard (2009) concluded the routine presence of a registered nurse has promoted patient safety and resulted in a decrease in patient falls.

Chapter III

Methodology and Procedures

Introduction

Patient safety and patient satisfaction are an expectation in the health care industry. Health services are under pressure to perform, to improve operational efficiency and the quality, and the safety of patient care. Innovations in models of nursing care delivery have been receiving-attention to address this problem. Nurses are at the center of the patient hospital experience, and well positioned to influence the quality of patient care (Gardner et al., 2009). This chapter describes the methods and procedures of this study.

Purpose

The purpose of this study is to test the effect of a Comfort Model of care rounding to improve patient satisfaction and nursing practice environment in the hospital setting. This hourly patient rounding model has the potential to positively influence patient care, safety, and management of nursing care within the hospital. This is a replication of Gardner et al.'s (2009) study.

Research Questions

1. What is the difference in patient satisfaction in two groups of patients, one group that has comfort hourly rounding, and the other group traditional rounding?
2. Are there differences in nurses' perception of the practice environment in two groups of nurses, one that practices hourly comfort rounding and the other group that does traditional rounding?

Population, Sample, and Setting

The study will take place in Valparaiso, Indiana. It will be conducted on five medical-surgical units at a for-profit, 300 bed hospital. The patient population will include patients admitted to the medical-surgical units over 2 months. The units have an average patient length of stay of 5 days, and an average daily census of 33. The population will be approximately 400 total patients on five units in that time frame. The anticipated sample is estimated to be 200 patients, 50% of the total available population. Inclusion criteria for patients are: adults at least 18 years of age, alert and oriented, and have agreed to participate in the study.

The nursing staff consists of 100 nurses and 46 nursing assistants from the five units. The anticipated sample to be included in the study is 50 nurses and 23 nursing assistants, 50% of the total available staff.

Protection of Human Subjects

The research proposal will be submitted to Ball State University and the Hospital Institutional Review Board (IRB) following all hospital and state Rules and Regulations. Permission for the study will be obtained from the IRB Committees, the Chief Nursing Officer, and the Director of Risk Management. Supervisors and managers of the units involved will be presented with the study plan prior to its implementation. All Staff on the involved units will be informed in writing of the study purpose and measures, and educated as to role and participation expectations.

All patients involved in the study will be informed of the study by the researcher and reinforced during daily rounds by the staff. Patient care will not be affected for patients on the units. All data will be anonymous and no patients or nurses will be identified. Nurses will participate voluntarily and jobs will not be affected if staff choose not to participate. Patient surveys are confidential and adult patients are randomly selected from all discharges. Patient results are assigned to the unit from which the patient was discharged. Because Healthstream performs random post-discharge calls for the HCAHPS patient satisfaction survey, there are no anticipated risks to this study. The benefits of the study are evaluation and assessment of the results and impact on patient satisfaction.

Procedures

The study will first be presented to, and approved by, IRB Committees and the Director of Nursing. An informational meeting with nurse managers will occur 6 weeks

prior to initiation of the study. Details of the study, time commitment of nursing staff, and the data collection process will be explained.

There will be training sessions offered on the five participating units at convenient times for all shifts. The sessions will be 15 minutes. The content of the training will include the current status of the units' patient satisfaction scores, the purpose of the study, procedures, the 2 month length of the study, the supporting evidence-based practice guidelines, the rounding tracking tool, and time for questions and answers.

Patient rounding, by the nurse or the nursing assistant, will occur hourly between the times of 6:00 am and 10:00 pm, and every 2 hours between the times of 10:00 pm and 6:00 am. During each round, the process will include:

1. An explanation of the process to the patient on admission/first rounding intervention
2. Subsequent rounding will be verbally announced to the patient as "Is there anything that you need?" The nurse or nursing assistant will focus on pain, patient's position, personal hygiene needs, and ability to access personal possessions. Prior to leaving the room, the staff will ask "Is there anything else I can get for you before I leave?" The final comment will be "Someone will be back within the hour." The researcher will observe the nurse perform a "practice" Patient Comfort Rounding prior to the nurse's participation in the study.
3. Staff will initial the Rounding Log that is on the patient's door, and will checkmark each area of care addressed with the patient.

4. Nurses will complete the PES-NWI a week prior to the study's implementation, during week 4 of the rounding, and 2 weeks after the completion of the study.
5. Patients will complete a patient satisfaction survey within 1 week after discharge. Patients will be called by Healthstream to complete a phone survey, and data will be provided to the researchers.

Description of Instruments

Rounding Logs will be a grid that allows documentation of addressing each patient need with staff initials each hour. Rounding Logs will be posted in each patient's room. The rounding logs will be printed on green paper to insure distinction from Intake and Output logs, PCA or Blood Sugar logs. Completed Rounding Logs with hourly documentation for each calendar day (24 hours) will be collected and submitted to the unit directors daily.

The dimensionality of the patient satisfaction survey was examined using principal components analysis (PCA). PCA refers to a cluster of items in the survey. This survey revealed the presence of two components that accounted for 70% of the total variance. The loadings indicate the presence of two well-defined components, therefore the patient satisfaction survey has a two-dimensional structure (Gardner et al., 2009).

Healthstream is the company that collects patient satisfaction data through post-discharge phone surveys to the patients. A 5 point Likert Scale is utilized, with 5 = "Always Satisfied", and 1 = Never Satisfied. The patient survey consists of 25 questions that include the patients' perceptions of care by the nurse, by the physician, the quietness

and cleanliness of the environment, the likelihood of recommending the hospital, and overall satisfaction. Healthstream uses the Hospital Consumer Assessment of Healthcare Providers and System (HCAHPS), which was endorsed by the National Quality Forum in 2005. Quarterly results are posted by our Quality Department and shared with directors and staff. The Cronbach's alphas are calculated for the full scale and the subscales. For this survey, the alphas are 0.89 for the full scale, 0.86 for the component 1 subscale, and 0.82 for the component 2 subscale (Gardner et al., 2009).

The effect of hourly patient rounding on staff satisfaction with the practice environment will be measured using the Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 1986). The Practice Environment Scale of the Nursing Work Index was developed by E.T. Lake in 1986. The NWI is a scale which is considered to reflect the organizational characteristics of environments that were attractive to nurses. This study utilizes 5 subscales, retaining a total of 31 of the 48 items originally selected from the NWI.

1. Nurse participation in hospital affairs (9 items)
2. Nursing Foundations for Quality of Care (10 items)
3. Nurse Manager, ability, leadership and support of nurses (5 items)
4. Staffing and resource adequacy (4 items)
5. Collegial Nurse-Physician relations (3 items)

The tool, in the form of a paper questionnaire, has a 5 point Likert-type scale (1=poor/strongly disagree to 5=excellent/very good/strongly agree) and converted to a

100-point scale. The PES-NWI was reported to have good reliability (Gardner et al., 2009).

Data Collection

Staff will complete the PES-NWI questionnaire at 3 intervals: the week before the comfort rounds begin, the fourth week of rounds, and 2 weeks after the completion of the rounding study. Healthstream is a contracted provider for the HCAHPS patient satisfaction survey. Patients will receive a call from Healthstream within 7 days of discharge to complete the survey.

The Rounding Log will be available for staff review 1 week prior to implementation of the study. The researcher will be responsible for data collection.

Research Design

This is a quasi-experimental study using a non-randomized parallel group trial design (Burns & Grove, 2009). A quasi-experimental design relates to a particular type of study in which one has little or no control over the allocation of the treatments or other factors being studied. It is a research method similar to an experimental design except that it makes use of naturally occurring groups rather than randomly assigning subjects to groups. The effect of the intervention of hourly rounding (independent variable) and the patient outcome (dependent variable) will be examined in this study. Comparison will be made with similar medical/surgical units not participating in the rounding intervention. Patient satisfaction HCAHPS scores from both before the hourly rounding model was implemented and after the study's completion will be analyzed.

Method Data Analysis

Descriptive statistics will be used to calculate the rounding log. The t-test will compare means from the two scores. A t-test is a parametric analysis technique used to determine significant differences between two samples (Burns & Grove, 2009, p. 726).

Summary

The purpose of this study is to test the effect of a model of practice that previous evidence-based studies have shown to have a positive impact on patient satisfaction. Implementation of purposeful hourly rounding by nursing staff has the potential to positively influence patient care management and safety, patient satisfaction, and staff satisfaction. It is a quasi-experimental post-test non-randomized parallel group trial design. Patient satisfaction will be trended pre-study and post-study and analyzed for effects of the hourly rounding intervention. The instruments used will be the HCAHPS patient satisfaction survey as distributed by Healthstream and the Hourly Rounding Log, created to track performance and compliance. The findings of this study will provide information to guide decisions on interventions to improve patient satisfaction.

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